

Table 2: Projected approximate IPR component costs for DVB receivers

Receiver Technology Component	DVB specific		Generic to all systems	
	DVB-T	Middleware (iTV, etc)	Audio, video & multiplexing	Implementation specific
Fundamental Technology	COFDM	DVB MHP API	MPEG-2 Systems, Video & Audio Dolby AC3	Conditional Access etc
International Standards Reference	EN 300 744	ES 201 812	ISO/IEC 13818-1,2,3 and others	implementation specific
Organisation managing the Patent Pool	MPEG-LA * (www.mpegla.com)	ETSI ** (www.etsi.org)	MPEG-LA *** (www.mpegla.com) Dolby *** (www.dolby.com)	implementation specific ****
*	MPEG-LA has indicated that the royalty cost for essential DVB-T patents would be US\$0.75. The fee covers the core DVB-T patents from France Telecom, Matsushita, JVC and Philips and is designed to be fixed for a period of 5 years (from 2000) independent of further additions to the patent pool. (Another pool, managed by ETSI, covers the DVB Common Scrambling Algorithm.)			
**	A high percentage of MHP's technology is formed from Sun Microsystems' Java™, other components are, for example, from Havi, and the balance from DVB-specific components. Sun has offered a US\$0 license to any implementer for its technology provided that the implementer accepts not to assert its own IPR covering the technology. For more details see A066 on www.mhp.org . Thus the IPR royalty costs of the MHP specification are kept low. DVB is currently fostering an MHP patent pool (see www.mhp.org) that is designed to identify organisations, other than Sun, who have IPR essential to MHP.			
***	MPEG-2 is the common basis for all digital television systems. While DVB is the most significant single MPEG-2 "user", the royalty costs for essential IPR are the same across all the digital television systems. Dolby is the owner and licensor of the DVB AC-3 technology			
****	When a manufacturer builds a receiver, it may choose to obtain a licence for the receiver technology from a third party vendor. This may also be the case when a chip manufacturer implements a technique from a research institute for example. Such royalty arrangements are beyond the scope of the IPR policy of any standards organisation.			

Source: "A Global Digital TV Standard for Latin America and the Caribbean"
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